

INTERNATIONAL SEARCH REPORT

Inte al Application No
PCT/US2004/004617

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 E02D29/14 E01C23/088

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 E02D E01C E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 182 299 A (STEHR JUERGEN) 27 February 2002 (2002-02-27)	1, 12, 17, 18, 21, 22, 24, 29, 30
Y	paragraphs '0022! - '0040!; figures 1-5	19, 20, 23, 32, 33
A		2-11, 13-16, 25-28, 31, 34
Y	US 4 911 253 A (CLICHE NORMAND) 27 March 1990 (1990-03-27)	19, 20,
A	column 3, line 62 - column 5, line 13; figure 8	23, 32, 33 17, 19, 20
A	US 2 070 001 A (COPELIN LEONARD S) 9 February 1937 (1937-02-09) figures 1, 4, 6	1, 3, 14, 34

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the International search

19 October 2004

Date of mailing of the International search report

26/10/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.
Fax: (+31-70) 340-3016

Authorized officer

Kergueno, J

INTERNATIONAL SEARCH REPORT

Information on patent family members

Inte	al Application No
PCT/US2004/004617	

Patent document cited in search report	Publication date	Patent family member(s)			Publication date
EP 1182299	A 27-02-2002	DE 10041247 A1	CZ 20013033 A3	DE 20022889 U1	04-04-2002 12-06-2002 16-05-2002
		EP 1182299 A2			27-02-2002
		PL 349250 A1			25-02-2002
US 4911253	A 27-03-1990	NONE			
US 2070001	A 09-02-1937	NONE			